REMARKS

This responds to the Office Action dated on April 18, 2006, and the references cited therewith. Claims 1-40 are pending in this application. Applicant does not admit that the cited references are prior art and reserves the right to swear behind such references at a later date.

Claim Rejections – 35 U.S.C. § 103

Claims 1-3, 5-6, 12-21, and 27-40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hughes et al. (U.S. Patent No. 6,427,193) (hereinafter "Hughes") and Pitts et al. (U.S. Patent No. 4,893,248) (hereinafter "Pitts"). Claims 4 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Pitts as applied to claims 1-3, 5-6, 12-21, and 27-40, and further in view of "Enhancement of IEEE 802.11 Distributed Coordination Function with Exponential Increase Exponential Decrease Backoff Algorithm" by Nah-Oak Song et al. (hereinafter "Song"). Claims 8-10 and 22-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Aikawa et al. (U.S. Patent No. 6,898,751) (hereinafter "Aikawa"). Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Aikawa as applied to claims 8-10 and 22-26, and further in view of Song.

A) The Applicable Law for Rejection under 35 U.S.C. § 103

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness.[1] To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references.[2]

The *Fine* court stated that:

> Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the

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[1] *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).
[2] *Id.*

claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so."[3]

The M.P.E.P. adopts this line of reasoning, stating that

> In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.[4]

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference.[5] At the same time, however, although it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching.[6] The references must teach or suggest all the claim elements.[7]

B) Discussion of the rejection of claims 1-3, 5-6, 12-21, and 27-40 under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Pitts.

No Motivation to Combine the References: With regard to claims 1-3, 5-6, 12-21, and 27-40, Applicant submits that the Office Action does not identify any teachings

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[3] *Id.* (emphasis in original).

[4] *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

[5] *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992).

[6] (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979)).

[7] M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

of the prior art or knowledge of ordinary skill in the art that would motivate one to modify Hughes using Pitts. In the Response to Arguments section of the Final Office Action, the Office indicated that "[s]ince each reference seeks to solve a similar problem, a skilled artisan would have been motivated to combine the references at the time the invention was made."[8]

Applicant respectfully traverses this assertion. First, the cited references are nonanalogous art. Hughes relates to "load/store units within processors."[9] Pitts relates to remote terminals and a central terminal "which monitors and accumulates data for pay for view television programs . . ."[10] Thus, Hughes relates to the multi-processor technology, while Pitts relates to data monitoring/accumulation technology for pay-per-view programming. Furthermore, the cited references solve different problems. Hughes solves a problem related to deadlocking in a multi-processor environment. Pitts solves a problem related to reporting of data from remote terminals for pay per view program. Thus, the references are not solving a similar problem. Thus, the Office Action has not established a *prima facie* case of obviousness under 35 U.S.C. §103.

Combining the References Does Not Teach All Limitations:

Claims 1-4, 6, 12-21, 27-30 and 34-37

With regard to claim 1, among the differences, claim 1 recites "a congestion detection logic to output a signal that indicates that the resource is congested based on receipt of a consecutive number of negative acknowledgments in response to access requests to the resource." In the Response to Arguments section of the Final Office action, the Office indicated a report message from Pitts is "considered analogous" to the recited limitation of "a signal that indicates that the resource is congested":

> The two can be considered analogous, because a report message is sent over a signal line. See col. 21, lines 10-23 and fig. 2 of Pitts. Information sent to the Central Station 11 is sent over Phone Signal Lines 18.[11]

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[8] Final Office Action at ¶63.
[9] Hughes at column 1, lines 6-7.
[10] Pitts at column 1, lines 7-17.
[11] Final Office Action at ¶64.

Applicant respectfully traverses this assertion. <u>The report message provides no indication of congestion (regardless of whether the message is considered a signal)</u>. A report message includes "data indicative of the authorized program(s) and the identity code of the remote terminal to the central station."[12] After three NAKs are received, the NAK counter is zeroed out and the report message is again transmitted.[13] Thus, the cited references do not disclose or suggest all of the claim limitations. Accordingly, Applicant respectfully submits that the rejection of claim 1 under 35 U.S.C. §103 has been overcome. Because claims 2-3 depend from and further define claim 1, Applicant respectfully submits that the rejection of claims 2-3 has been overcome for at least the same reason.

With regard to claim 5, among the differences, claim 5 recites "a congestion detection logic to detect congestion of access of the data based on receipt of a consecutive number of negative acknowledgments that exceed a threshold prior to access of the data." Based on the remarks set forth above regarding claim 1, Applicant respectfully submits that the cited references do not disclose or suggest all of the claim limitations. Therefore, Applicant respectfully submits that the rejection of claim 5 under 35 U.S.C. §103 has been overcome. Because claim 6 depends from and further defines claim 5, Applicant respectfully submits that the rejection of claim 6 has been overcome for at least the same reason.

With regard to claim 12, among the differences, claim 12 recites "wherein the first processor includes a congestion detection logic to detect congestion of access to the data based on receipt of a consecutive number of negative acknowledgements in response to the access requests." Based on the remarks set forth above regarding claim 1, Applicant respectfully submits that the cited references do not disclose or suggest all of the claim limitations. Therefore, Applicant respectfully submits that the rejection of claim 12 under 35 U.S.C. §103 has been overcome. Because claims 13-16 depends from and further define claim 12, Applicant respectfully submits that the rejection of claims 13-16 has been overcome for at least the same reason.

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[12] Pitts at column 2, line 68- column 3, line 2.
[13] See Pitts at column 21, lines 35-40.

With regard to claim 17, among the differences, claim 17 recites "a congestion detection logic to detect congestion of access of the resource based on a consecutive number of negative acknowledgements received in response to the access requests prior to receipt of a positive acknowledgment in response to one of the access requests within a first time period." In the Response to Arguments section of the Final Office action, the Office reiterated its position that Pitts at column 21, lines 24-40 "teaches sending a signal and zeroing the counter after a number of negative acknowledgements, specifically three."[14] The Office also referenced Pitts at column 23, lines 1-13 for support that Pitts teaches congestion. Neither section of Pitts discloses or suggests that there is congestion detected if a number of negative acknowledgements are received in a given time period. Accordingly, Applicant respectfully submits that the rejection of claim 17 under 35 U.S.C. §103 has been overcome. Because claims 18-21 depend from and further define claim 17, Applicant respectfully submits that the rejection of claims 18-21 has been overcome for at least the same reason.

With regard to claims 27 and 34, Applicant respectfully submits that such claims are patentable for at least the reasons set forth above regarding claims 1 and 17. Because claims 28-30 and 35-37 depend from and further define claims 27 and 34, respectively, Applicant respectfully submits that the rejection of claims 28-30 and 35-37 has been overcome for at least the same reason.

C) Discussion of the rejection of claims 4-7 under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Pitts and in further view of Song.

In addition to the remarks set forth above regarding claims 1 and 5 from which claims 4 and 7 depend respectively, Applicant respectfully submits the following remarks. Applicant submits that the Office Action does not identify any teachings of the prior art or knowledge of ordinary skill in the art that would motivate one to modify Hughes using Pitts and using Song. In the Response to Arguments section, the Office indicated that the Abstract of Song provides the suggestion to combine.[15] Applicant respectfully traverses this assertion. Song relates to backoff algorithms for a wireless

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[14] Final Office Action at ¶65.
[15] Final Office Action at ¶68.

communication standard – IEEE 802.11. Hughes relates to "load/store units within processors."[16] Pitts relates to remote terminals and a central terminal "which monitors and accumulates data for pay for view television programs . . ."[17] The abstract in Song does not provide any suggestion that the algorithms for a wireless communication standard can be combined with load/store units within processors or with data accumulation for pay for view programs. Thus, the Office Action has not established a *prima facie* case of obviousness under 35 U.S.C. §103. Thus, the Office Action has not established a *prima facie* case of obviousness under 35 U.S.C. §103 for claims 4 and 7.

D) Discussion of the rejection of claims 8-10 and 22-26 under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Aikawa.

No Motivation to Combine the References: With regard to claims 8-10 and 22-26, Applicant submits that the Office Action does not identify any teachings of the prior art or knowledge of ordinary skill in the art that would motivate one to modify Hughes using Aikawa. In the Response to Arguments section, the Office indicated that "both Hughes and Aikawa teach systems that aim to reduce congestion."[18] Applicant respectfully traverses this assertion. As previously discussed, Hughes solves a problem related to deadlocking in a multi-processor environment. Aikawa solves a problem related to polling among computing systems. These references are not solving a similar problem. Moreover, neither reference even uses the term "congestion." Therefore, there is no motivation to combine such references. Thus, with regard to claims 8-10 and 22-26, the Office Action has not established a *prima facie* case of obviousness under 35 U.S.C. §103.

Combining the References Does Not Teach All Limitations: Moreover, with regard to claims 22-26, Applicant submits that the combining of the cited references does not teach all of the claimed limitations.

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[16] Hughes at column 1, lines 6-7.
[17] Pitts at column 1, lines 7-17.
[18] Final Office Action at ¶69.

Among the differences, claim 22 recites "a congestion detection logic to detect congestion of access of a first cache line of the number of cache lines based on a ratio of a number of negative acknowledgments to a number of positive acknowledgments received in response to the access requests." In the Response to Arguments section, the Office indicated "Aikawa mentions the use of ACKs in addition to NAKs."[19] As noted in Applicant's prior response, the section cited by the Office (regarding the use of a ratio of NAKs to ACKs) does NOT disclose ACKs. Further, this section does not disclose a ratio of NAKs to ACKs.

In the Response to Arguments section, the Office further indicated the following:

> While the Aikawa reference does not anticipate all limitations of claim 22,
> it has been shown above that the combination of Aikawa and Hughes
> would allow the skilled artisan to have a good chance of success in
> achieving the invention of claim 22.[20]

In other words, none of the cited references disclose the claimed limitations. Applicant notes for the record that the Examiner appears to taking official notice of the missing elements, which is timely traversed herein under M.P.E.P. § 2144.03, and if the Examiner is aware of a reference providing support for the assertion, citation of such reference is respectfully requested. If a reference cannot be provided, Applicant submits the assertion is formed on personal knowledge and Applicant requests that an affidavit be provided, as required by 37 C.F.R. § 1.104(d), or withdrawal of this 35 U.S.C. § 103 rejection. Because claims 23-26 depend from and further define claim 22, Applicant respectfully submits that the rejection of claims 23-26 has been overcome for at least the same reason.

E) Discussion of the rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Hughes and Aikawa and further in view of Song.

In addition to the remarks set forth above regarding claim 8 from which claim 11 depends, Applicant respectfully submits the following remarks. With regard to claim 11,

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[19] Final Office Action at ¶70.
[20] Final Office Action at ¶70.

Applicant submits that the Office Action does not identify any teachings of the prior art or knowledge of ordinary skill in the art that would motivate one to modify Hughes using Aikawa and Song.

In the Response to Arguments section, the Office indicated that the Abstract of Song provides the suggestion to combine.[21] Applicant respectfully traverses this assertion. Song relates to backoff algorithms for a wireless communication standard – IEEE 802.11. Hughes relates to "load/store units within processors."[22] Aikawa relates to polling among computing systems.[23] The abstract in Song does not provide any suggestion that the algorithms for a wireless communication standard can be combined with load/store units within processors or with polling among computing systems. Thus, the Office Action has not established a *prima facie* case of obviousness under 35 U.S.C. §103. Thus, the Office Action has not established a *prima facie* case of obviousness under 35 U.S.C. §103 for claim 11.

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[21] Final Office Action at ¶68.
[22] Hughes at column 1, lines 6-7.
[23] Aikawa at column 1, lines 8-10.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2103 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

GREGORY MARLAN ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG,
WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 371-2100

Date ___5-23-06___   By _____
                                   Gregg A Peacock
                                   Reg. No. 45,001

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this _23_ day of May, 2006.

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